



# The Quality Management System of the Finnish Vessel Traffic Services

Finnish Transport Agency (FTA)



# Vessel Traffic Services in Finland



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## Legislation

- Vessel Traffic Service Act 623/2005
- Government Decree on Vessel Traffic Service 763/2005



## Authorities

- Competent authority: the Ministry of Transport and Communications
- VTS authority: the Finnish Transport Agency
  - Traffic and Information (Division)
  - Traffic Management Centres (Department)
  - Vessel Traffic Services (Unit)



# Vessel Traffic Services in Finland

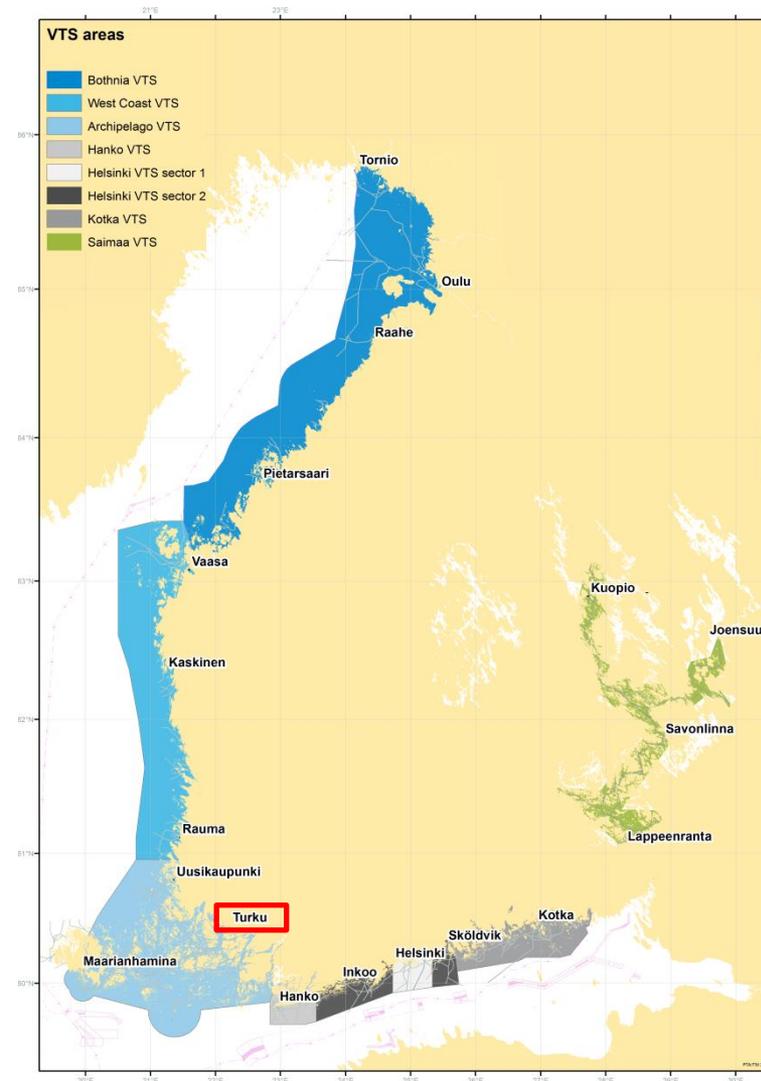
- Vessel Traffic Services
- The Mandatory Ship Reporting System in the Gulf of Finland (GOFREP)
- Traffic Separation Schemes in the Gulf of Finland and the Åland Sea
  - applied in international waters together with Finland's neighbouring countries.
- Safety Radio Communications



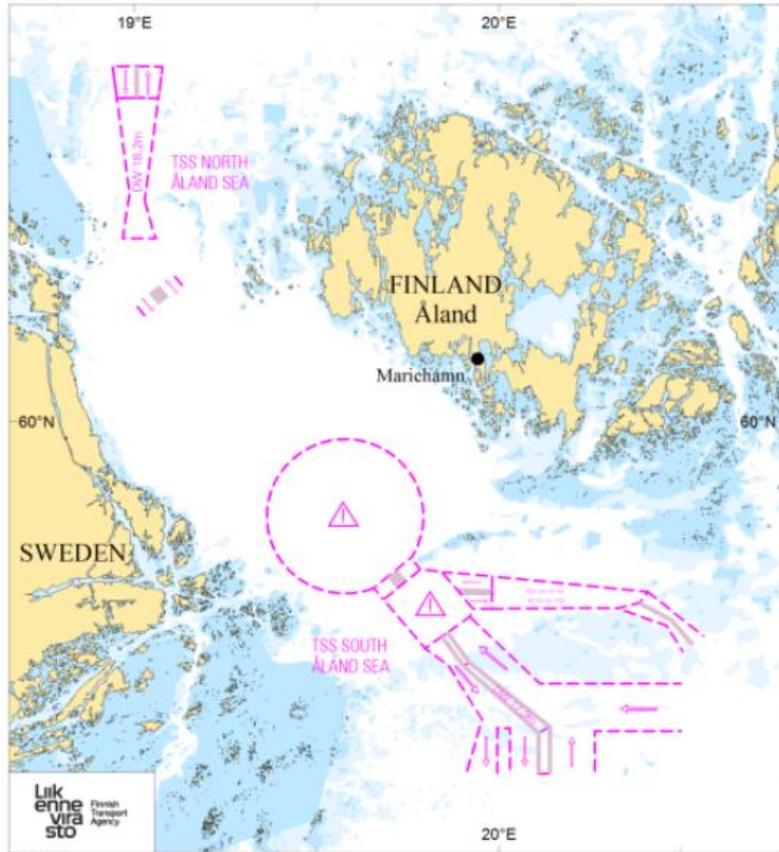


# Western Finland Vessel Traffic Centre

- Location: Turku
- Tasks:
  - Bothnia VTS
  - West Coast VTS
  - Archipelago VTS
  - Åland Sea TSS
  - Turku Radio
- Bothnia VTS, West Coast VTS and Archipelago VTS provide all three services (information, traffic organization and navigational assistance).



# Åland Sea TSS

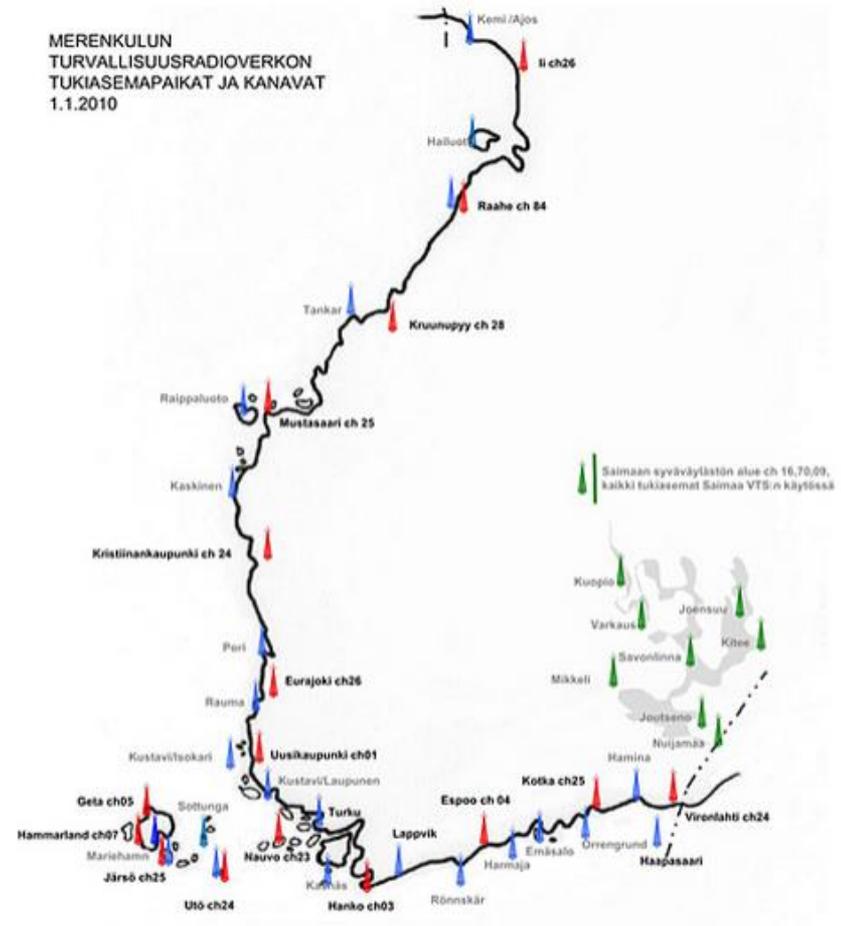


- Finland, in cooperation with Sweden, has established a Traffic Separation Scheme in the Åland Sea (Åland Sea TSS).
- Vessel traffic is monitored by the Western Finland Vessel Traffic Centre.
- There is no mandatory ship reporting system in the area, but all vessel traffic is monitored and vessels and flag states are notified of any violations.



# Turku Radio

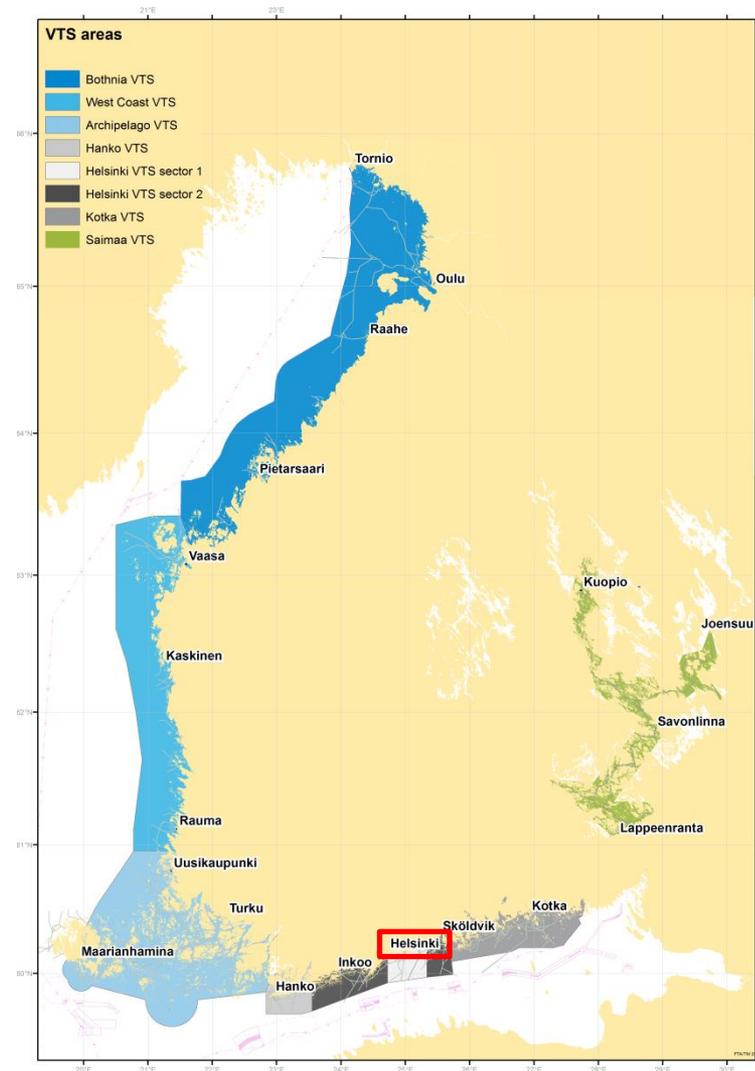
- The Finnish Transport Agency is responsible for ensuring maritime safety and distress radio communications in Finland.
- Turku Radio handles the coastal safety and distress radio operations throughout the year.





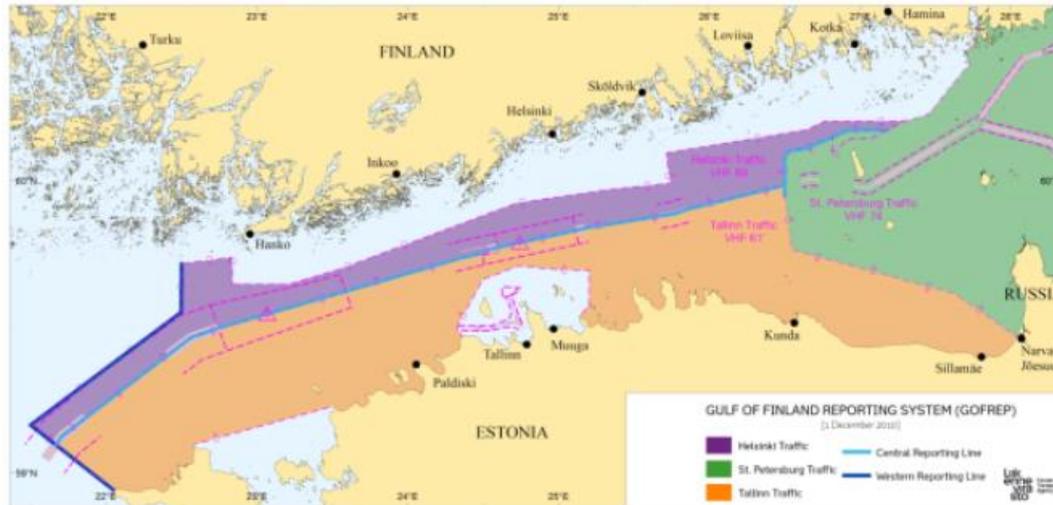
# Gulf of Finland Vessel Traffic Centre

- Location: Helsinki
- Tasks:
  - Hanko VTS
  - Helsinki VTS
  - Kotka VTS
  - GOFREP
- Hanko VTS, Helsinki VTS and Kotka VTS provide all three services (information, traffic organization and navigational assistance).



# GOFREP

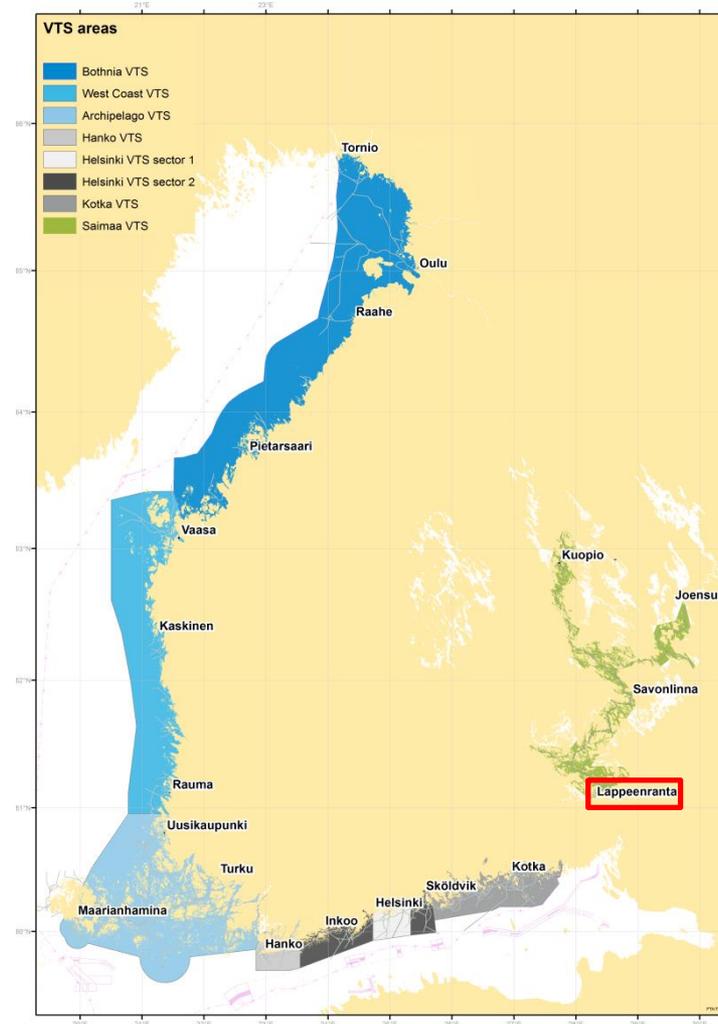
- Under regulation V/11 of the SOLAS Convention and jointly with Estonia and Russia, Finland has established a Mandatory Ship Reporting System in the Gulf of Finland.
- Tasks of the GOFREP:
  - to monitor the traffic and the traffic separation schemes in the area;
  - to ensure that vessel traffic complies with the international rules of the road at sea (COLREG);
  - to maintain an updated SRS database.





# Saimaa VTS

- Location: Lappeenranta
- Tasks:
  - Saimaa VTS
- Saimaa VTS only provides information service.
- Saimaa VTS operates the maritime safety and distress radio communications in the deep channels of the Lake Saimaa area.
- Saimaa VTS does not operate off season.





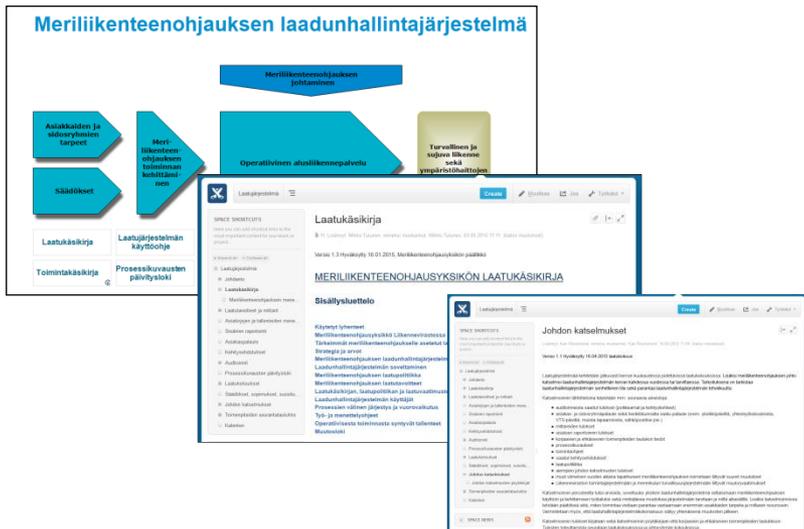
# A description of the Quality Management System



# Quality Management System



- The Quality Management System is applied to the Finnish Transport Agency's Vessel Traffic Services Unit.



- The Quality Management System is created and maintained in accordance with the ISO 9001:2008 standard.





# Use of the System

- The working instructions are defined in the Operating Manual according to section 19 of the Vessel Traffic Service Act...
- ... whereas the Quality Management System is intended to be a tool for aiding day-to-day Vessel Traffic Services operations, such as quickly finding work instructions and required documents.
- The QM System allows for the management of Vessel Traffic Services to develop and improve Vessel Traffic Services operations.
- The QM System intends to present Vessel Traffic Services operations as clearly and logically as possible for the familiarization of new VTS Operators and other people working in Vessel Traffic Services.

**SÄÄDÖKSET, SOPIMUKSET, SUOSITUKSET YM.**

**1. Pakolliset**

SOLAS 1974 (Consolidated Edition, 2009)	Chapter V/10 Ship's Routing
	Chapter V/11 Ship Reporting Systems
	Chapter V/12 Vessel Traffic Services
	Chapter V/4 Navigational Warnings
	Chapter V/5 Meteorological Services and Warnings

SOLAS 1974/1978 on implementoitu Suomen lainsäädäntöön:

SopS 11/1981 (muutokseen)	Kansainvälinen yleissopimus ihmishengen turvallisuudesta merellä, 1974
→ 111/1981	Asetus ihmishengen turvallisuudesta merellä vuonna 1974 tehdyn kansainvälisen yleissopimuksen voimaansaattamisesta
SopS 35/1981	SopS 11/1981 liittyvä vuoden 1978 pöytäkirja
→ 319/1981	Asiavuos

Muutokset laeilla ja asetuksilla.

**Alusliikennepalvelujen tarjoaminen**

```

    graph TD
      subgraph "Asiakas"
        A1[Vastaaanottaa tarvittavat tiedot] --> A2[Liikkuu alueella, kuuntelee ilmoituksia VHF-kanaalla ja tekee tarvittavat ilmoitukset]
        A2 --> A3[Korjaa suuntansa/nopeutensa]
        A3 --> A4[Pyytää navigointiapua]
        A4 --> A5[Saa navigointiapua]
      end

      subgraph "Alusliikennepalvelu"
        B1["(Tunnus ja suunnan- ja nopeus-alueella sijaitseva alus)"] --> B2[Antaa alukselle alustietoa]
        B2 --> B3[Seuraa liikkeen kulkua]
        B3 --> B4["Hälyttää poikkeaman aluksen kulkusta ja antaa viiteviestin alukseen"]
        B4 --> B5{Hälyttääkö alus tiedon vastaanottoon?}
        B5 -- Kyllä --> B6[Antaa navigointiapua]
        B5 -- Ei --> B7[Reportointi]
      end

      A1 --> B1
      A2 --> B2
      A3 --> B3
      A4 --> B4
      A5 --> B6
  
```

**SPACE SHORTCUTS**  
Here you can add shortcut links to the most important content for your team or project.

- Expand all
- Collaps all
- Laatujärjestelmä
- Johdanto
- Laatukäsikirja
- Laatuvälitteet ja mittarit
- Asiakirjojen ja tallenteiden mene...
- Sisäinen raportointi
- Asiakaspalaute
- Kehitusehdotukset

**Pöytäkirjat**

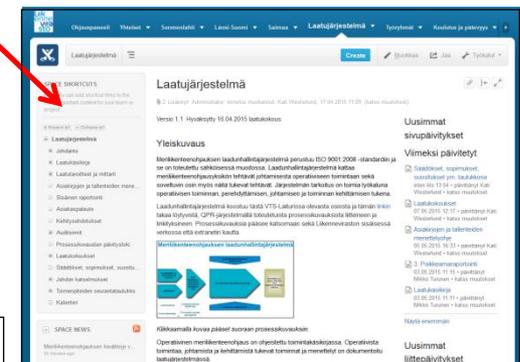
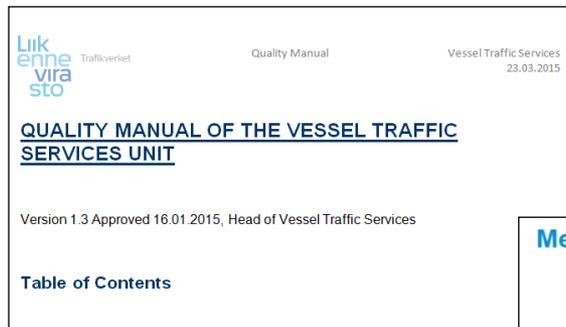
30 Lisänyt: Tuomas Martikainen, viimeksi muokannut: Riitta Kuukka, 16.03.2012 09:30 (katso muutokset) näytä kom...

File	Modified
> Pöytäkirja 16 04 2015.docx Vedos, ei hyväksytty	eilen klo 14:27 by...
> Pöytäkirja 18 02 2015.pdf	eilen klo 14:26 by...
> Pöytäkirja 13 01 2015.pdf	05.03.2015 13:26 t...
> Pöytäkirja 10 12 2014.pdf	08.01.2015 10:31 t...
> Pöytäkirja 10 11 2014.pdf	10.12.2014 11:50 t...



# Structure of the System

- The Quality Management System is created in electronic form.
- The Quality Management System comprises
  - a quality manual
  - documents and records defined in the system, e.g. working instructions
  - the Quality System section on the portal VTS Laituri ('Quay')
  - process descriptions in the QPR system





# QM System on the Portal VTS Laituri

**SPACE SHORTCUTS**  
Here you can add shortcut links to the most important content for your team or project.

**SPACE NEWS**  
Meriliikenteenohjauksen kvätkirja v...  
1 hour ago.  
Uusi sisäinen raportointipohja Laituri...  
4. huhtikuuta 2015  
Sisäisen auditoinnin 2. osa alkaa en...  
28. huhtikuuta 2015  
**More**

## Laatujärjestelmä

2 Lisänyt: Administrator, viimeksi muokannut: Kati Westerlund, 17.04.2015 11:09 (katso muutokset)

Versio 1.1 Hyväksytty 16.04.2015 laatukokous

### Yleiskuvaus

Meriliikenteenohjauksen laadunhallintajärjestelmä perustuu ISO 9001:2008 -standardiin ja se on toteutettu sähköisessä muodossa. Laadunhallintajärjestelmä kattaa meriliikenteenohjauksikon tehtävät johtamisesta operatiiviseen toimintaan sekä soveltuvin osin myös näitä tukevat tehtävät. Järjestelmän tarkoitus on toimia työkaluna operatiivisen toiminnan, perehdyttämisen, johtamisen ja toiminnan kehittämisen tukena.

Laadunhallintajärjestelmä koostuu tästä VTS-Laiturissa olevasta osiosta ja tämän linkin takaa löytyvistä, QPR-järjestelmällä toteutetuista prosessikuvauksista liitteineen ja linkityksineen. Prosessikuvauksia pääsee katsomaan sekä Liikenneviraston sisäisessä verkossa että extranetin kautta.

Klikkaamalla kuvaa pääset suoraan prosessikuvauksiin.

Operatiivinen meriliikenteenohjaus on ohjeistettu toimintakäsikirjassa. Operatiivista toimintaa, johtamista ja kehittämistä tukevat toiminnot ja menettelyt on dokumentoitu laatujärjestelmässä.

### Laatutyöryhmän kokoonpano

Työn tukena toimii laatutyöryhmä.  
[Laatutyöryhmän sivu Laiturissa](#)

### Uusimmat sivupäivitykset

#### Viimeksi päivitetyt

- Säädökset, sopimukset, suositukset ym. taulukkona eilen klo 13:54 • päivittänyt Kati Westerlund • katso muutokset
- Laatukokoukset 07.05.2015 12:17 • päivittänyt Kati Westerlund • katso muutokset
- Asiakirjojen ja tallenteiden menettelyohje 05.05.2015 16:33 • päivittänyt Kati Westerlund • katso muutokset
- 3. Polkkeamaraportointi 03.05.2015 11:15 • päivittänyt Mikko Turunen • katso muutokset
- Laatukäsikirja 03.05.2015 11:11 • päivittänyt Mikko Turunen • katso muutokset

[Näytä enemmän](#)

### Uusimmat liitteenpäivitykset

#### Viimeksi päivitetyt

- Kirje veneläisille.pdf noin tunti sitten • liittänyt Kati Westerlund
- Laatukokous asialista

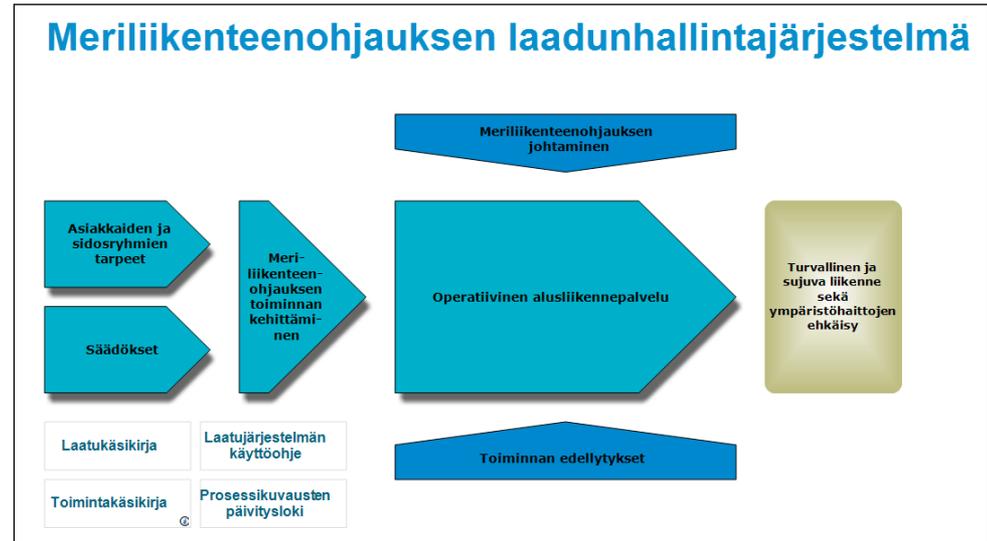
- Part of the Quality Management System is situated on the [Portal VTS Laituri \('Quay'\)](#).
- It comprises a large part of the text sections of the system, e.g.
  - Quality Manual
  - Quality targets and quality target metrics
  - Customer feedback
  - Audit materials
  - Meeting materials
  - Instructions related to the Quality Management System
  - Some materials supporting the work of VTS Operators
  - Documented responsibilities





# Process Descriptions in the QPR System

- Another part of the Quality Management System is included in the [QPR System](#).
- It comprises all process descriptions of Vessel Traffic Services, e.g.
  - Operational processes of Vessel Traffic Services
  - Development of operations
  - Regulations
  - Management
  - Operational requirements and resources
  - Customer and stakeholder needs



# Process descriptions in the QPR System

- The processes are divided into different layers and pictures according to the subjects.
- It is possible to navigate by clicking the boxes.
- Example of operational processes:



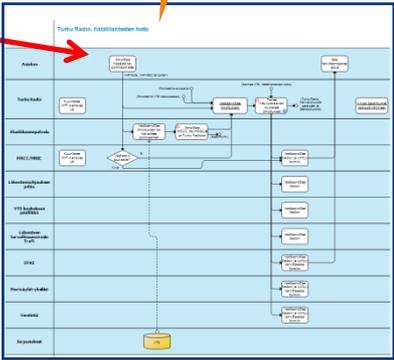
1. Front page.



2. Second layer: operational processes are divided into two groups.



3. Third layer: processes are further divided into two groups.



4. Process description of one type of procedure.





# Building the Quality Management System



## How we made it?

1. We started by describing the operational processes as they are at present. The help of a Quality Working Group (consisting of VTS operators from every VTS centre) was valuable. Working instructions of different VTS centres were integrated into joint working instructions for all VTS centres.
2. The next step was to describe other existing procedures (the relevant ones according to the ISO 9001). Some of them were developed to meet the requirements of ISO 9001.
3. The rest of procedures required by ISO 9001 were created and described.
4. An internal audit was arranged in order to see if the QMS was ready for use and to meet the requirements of ISO 9001.
5. The personnel of the Vessel Traffic Services unit was educated on how and when to use the QMS.
6. The QMS was taken into use step by step and the new procedures were tested in practice. Some of them has been improved since then and unnecessary bureaucracy has been lightened.
7. The QMS was audited in order to get an ISO 9001 certificate.
8. The development of the QMS continues as long as it is in use.



## How we made it?

- Some good principles on building a practical Quality Management System
  - Do not to add unnecessary workload of VTS operators; on the contrary, the aim of the system is to support their work.
  - Keep the entire system as simple as possible.
  - Minimize bureaucracy (simple procedures).
  - Ensure the systematic execution of certain procedures.
  - Describe the processes and procedures as they are in reality instead of future visions or “dreams”.
  - Act according the descriptions. If it does not work, change either your way of acting or the procedure itself.



# Achieving the ISO 9001 certificate

- The ISO 9001:2008 certificate was achieved in February 2016. The QMS was audited by Inspecta.
- The next steps are...
  - to develop the QMS and the operations of VTS to meet the requirements of the new ISO 9001:2015 standard.
  - to continue the development of the system itself as well as the operation of the Vessel Traffic Services unit by using the help of the QMS.





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for your attention!

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<http://www.liikennevirasto.fi/web/en/merchant-shipping/vts>.

